Docket JP920000136US1

Appl. No.: 09/826,710
Filed: April 5, 2001

## REMARKS

Upon review of the claims in preparing a response to the present Office action, Applicant has noted certain inconsistencies and lack of clarity or antecedent basis in the claims. Accordingly, Applicant herein submits amendments in this regard. Of particular note, it is felt that the amendments herein submitted improve clarity with regard to distinguishing between references to data fragments that are specified in a search query and references to data that is searched. That is, rather than referring to that which is specified by a search query as "data fragments," the amended claims now refer to "search query fragments," or else simply "fragments." In this manner, references simply to "data" should be more clearly understood to be references to the data that is searched.

Also submitted herein are new claims 8-11, which depend on claim 6 and have limitations according to their form in similar fashion as claims 2-5, and new claims 12-15, which depend on claim 7 and have limitations according to their form, also in similar fashion as claims 2-5.

Rejections under 35 U.S.C. 103(a).

Independent claims 1, 6 and 7, and dependent claims 3 and 5 stand rejected under 35 U.S.C. 103(a) as unpatentable over U.S. Patent 5,694,593 ("Baclawski") in view of U.S. Patent 6,493,709 ("Aiken"). Claims 2 and 4 stand rejected under 35 U.S.C. 103(a) as unpatentable over Baclawski in view of Aiken and further in view of U.S. Patent 5,884,303 ("Brown"). Applicant thanks Examiner Ehichioya for his consideration in making the most recent Office action, the Office action of May 20, 2004, non-final. Applicant also recognizes that in the Office action of May 20, 2004, Examiner Ehichioya has stated even more specifically what teachings of Aiken are relied upon for the rejection, i.e., in addition to providing specific citations of passages from Aiken. Applicant has found this helpful and also thanks Examiner Ehichioya for this consideration.

Applicant wishes to correct a possible misapprehension regarding arguments presented in Applicant's reply of March 11, 2004, in response to the Office action of December 11, 2003. It was not Applicant's intention to assert that the claims in the present application convey that some search query fragments *must* appear more than one time in a portion of the data that is searched in order for the portion to qualify as a "minimal portion." And, of course, it therefore was *not*

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Applicant's intention to distinguish the present invention from the cited art on such a basis. Applicant intended merely to make the point that the limitations of the claims do not preclude the possibility that some search query fragments *may* appear more than one time in a minimal portion, but that the limitations do not *require* some fragments to appear more than one time in a minimal portion.

In addition to the above mentioned amendments to provide additional dependent claims and to improve the form of the claims, amendments are herein submitted to more particularly and clearly point out patentable distinctions of the present invention and thereby overcome the rejections based on Baclawski, Aiken and Brown. In particular, amended claim 1 states that a method form of the invention includes "searching the data for a minimal portion" and that "to qualify as a minimal portion a portion of the data must contain: i) all the search query fragments and ii) no more than one occurrence of at least one of the search query fragments, and a portion of the data may qualify as a minimal portion even if: i) the data portion contains more than one occurrence of other ones of the search query fragments and ii) a sequence of the search query fragments in the data portion is different than a sequence of the fragments in the search query." Further, claim 1 states that "if a data portion qualifies as a minimal portion the method includes the step of identifying the data portion as a minimal portion." (Claims 6 and 7 have similar limitations, each according to the respective forms of the invention they claim. Accordingly, the discussion herein of claim 1 applies also to claims 6 and 7.) This amended language clearly distinguishes the present claimed invention from what is taught by Aiken, Baclawski and Brown, alone or in combination.

No new matter is added for the amended claims, since support is provided in the original specification for the amendments. Present application, page 4, line 11-14 (regarding a minimal portion containing only one occurence of one or more of the search query fragments and possibly containing more than one occurence of some other search query fragments); page 4, line 14-22 and page 6, line 23 - page 7, line 22 (regarding a minimal portion possibly containing a different sequence of the fragments).

The Office action of May 20, 2004, states that Aiken's illustration with regard to "This is it folks" in FIG. 3 is relied upon for the rejection. Applicant has previously pointed out Aiken and Baclawski teach about hashing, which is a well-known process for providing rapid access to

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data items in which a hash value is used as a sort of signature or index. [1]  FIG. 3 is a specific illustration of teachings discussed by Aiken in col. 15, line 3 - col. 16, line 27, in this regard.  See also Aiken col. 5, lines 36 - 52 (describing how documents are transformed into strings, such as by removing capitalization and white space, etc.) and col. 6, lines 31 - col. 7, line 26 describing how a hashing function is performed on the strings, which generates numerous hash values and position indicators for the many substrings).  Setting aside, however, that the relied upon passage of Aiken concerns hashing, the amendments submitted herein further distinguish the present invention from the teaching about "This is it folks" in FIG. 3.

As the present Office action states, Aiken shows that a portion "thi" matches with its sentence fragment "thi" in a query.  However, while Aiken may show a match between a query with fragments "t," "h," and "i" and a sentence with the exact same fragments in the exact same sequence, Aiken does not teach searching for a portion of data that must contain all the search query fragments and no more than one occurrence of at least one of the fragments, and that may contain more than one occurrence of other ones of the fragments and may have a sequence of the fragments different than a sequence of the fragments in the search query, as is now more clearly pointed out in amended claim 1 of the present application.

With regard to the relevance of Baclawski and Brown and the motivation to combine the references, Applicant maintains the contention stated in Applicant's previous reply.  The claim language in the present application has the clear sense of "fragments" meaning *search terms*, not fragments for hash coding, as in Baclawski and Aiken, or file fragments that map to a logical volume, as in Brown.

In addition, Applicant wishes to again point out Aiken's use of the term "minimal sequence" is not related to the term "minimal portion" as claimed in the present application.  Akin teaches that an "edit difference" can be determined in a comparison of a set of documents and that from this edit difference the maximal matching passage for the set of documents can be derived.  Aiken teaches that the edit difference is the length of a "minimal sequence" of insertions, deletions and substitutions that transforms one document, i.e., string, to another.  A "minimal sequence" of data that contains insertions, deletions and substitutions for transforming

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[1]  Baclawski, col. 2, lines 3-11; www. foldoc.org (definition of "hash coding").

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one string to another string, as taught by Aiken, is not like a "minimal portion" of data as claimed in the present application.

For all of the above reasons, the teachings of Aiken, Baclawski and Brown do not suggest what is claimed in the resent invention.
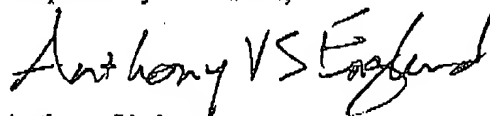
### Double patenting.

Claim 1 of the present application is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over U.S. Patent Number 6,625,599. Applicant herein submits a terminal disclaimer to overcome the rejection.

### REQUESTED ACTION

1. Applicant requests that Examiner return a copy of the IDS list submitted on 7/15/2003, wherein Examiner's initials are affixed to acknowledge that the reference listed therein has been examined. This reference has been the subject of written communication and telephone calls with the Office, including an 11/12/2003 telephone interview with Examiner Ehichioya and Supervisor Kindred, and including a Supplemental Reply, submitted 3/12/2003.

2. Applicant contends that the invention as claimed in accordance with amendments presented herein is patentably distinct, and hereby requests that Examiner grant allowance and prompt passage of the application to issuance.

Respectfully submitted,

Anthony V. S. England
Attorney for Applicants
Registration No. 35,129
512-477-7165
a@aengland.com

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